How to Install Gemini CLI from Scratch on macOS

This guide provides a comprehensive walkthrough for installing the Gemini CLI tool on a fresh macOS installation, assuming no prior package managers or Node.js/npm installations.

Prerequisites

Before you begin, ensure your system is ready for development.

1. Install Xcode Command Line Tools

Open your Terminal application (found in Applications/Utilities) and run:

```
xcode-select --install
```

Follow the prompts to install the Xcode Command Line Tools. These include essential development utilities like `git` and compilers necessary for building software.

2. Install Node.js and npm (using nvm)

Gemini CLI is a Node.js application, so you need Node.js and its package manager, `npm`. We highly recommend using `nvm` (Node Version Manager) for flexible Node.js version management.

Install nvm:

```
curl -o- https://raw.githubusercontent.com/nvm-sh/nvm/v0.39.7/install.sh | bash
```

Note: You can check the [nvm GitHub page] for the latest version if `v0.39.7` is outdated.

After running the `nvm` installation script, close and reopen your terminal, or run the following commands to apply the changes to your current session:

```
export NVM_DIR="$HOME/.nvm"
[ -s "$NVM_DIR/nvm.sh" ] && \. "$NVM_DIR/nvm.sh"  # This loads nvm
[ -s "$NVM_DIR/bash_completion" ] && \. "$NVM_DIR/bash_completion"  # This loads nvm bash_completion
```

Install Node.js (LTS version):

```
nvm install --lts
nvm use --lts
```

Verify your Node.js and npm installation:

```
node -v
npm -v
```

You should see version numbers printed for both.

3. Clone the Gemini CLI Repository

Navigate to a directory where you want to store the Gemini CLI source code (e.g., your home directory or a `projects` folder) and clone the repository. **Please replace `https://github.com/google/gemini-cli.git` with the actual official Gemini CLI GitHub repository URL.**

```
cd ~
git clone https://github.com/google/gemini-cli.git
```

This will create a directory named `gemini-cli` (or similar, depending on the repository name) containing the source code.

4. Install Gemini CLI Dependencies

Navigate into the cloned directory and install its Node.js dependencies:

```
cd gemini-cli
npm install
```

5. Link Gemini CLI Globally (Optional but Recommended)

To make the `gemini` command available from any directory in your terminal, you can link it globally:

```
npm link
```

Alternatively, you can install it globally from the current directory:

```
npm install -g .
```

Verify the installation by checking the Gemini CLI version (the command might vary, `gemini` is a common assumption):

```
gemini --version
```

6. Initial Configuration and Authentication

After installation, you will likely need to configure the Gemini CLI with your Google account credentials. The exact command will depend on the tool's design, but it's typically an `init` or `login` command.

Look for instructions in the `README.md` file within the cloned `gemini-cli` repository or on the official documentation page for the specific command to authenticate. It might look something like this:

```
gemini init
# or
gemini login
```

Follow the on-screen prompts to complete the authentication process.

You are now ready to use the Gemini CLI!